



Community Infection Prevention and Control Policy for Care Home settings

Invasive devices

INVASIVE DEVICES

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1. Introduction

An invasive device provides an entry point for microorganisms, such as bacteria and viruses, to enter the body and is a potential source for introducing infection.

All staff involved in inserting or managing an invasive device should be educated about the standard principles of infection prevention and control (IPC). Information on this policy should be included in IPC training for all relevant staff groups.

Always use 'Standard infection control precautions' (SICPs) and, where required, 'Transmission based precautions' (TBPs), refer to the 'SICPs and TBPs Policy for Care Home settings'.

It is recommended that annual audits to assess aseptic technique standards are carried out. An audit tool is available to download at www.infectionpreventioncontrol.co.uk.

2. Definition of an invasive device

Invasive device

A device which, in whole or in part, penetrates inside the body, either through a body opening, e.g. mouth, nostril, or through the surface of the body.

Surgically invasive device

A device which penetrates inside the body through the surface of the body, with the aid of or in the context of a surgical operation/procedure.

3. Examples of invasive devices

Below are some examples of invasive devices, this list is not exhaustive:

- Urinary catheters - refer to the 'Urinary catheterisation Policy for Care Home settings'
- Gastrostomy/PEG tubes - refer to the 'Enteral tube feeding Policy for Care Home settings'
- Nasogastric tubes
- Wound drains
- Subcutaneous infusion devices

- Vascular access devices:
 - Peripheral vascular access device, e.g. IV cannula
 - Central venous access device, e.g. peripherally inserted central catheter (PICC), skin-tunnelled catheter, implanted port

4. Period of use

The length of time an invasive device can be used for is categorised as follows:

- **Transient**
Normally intended for continuous use for less than 60 minutes
- **Short term**
Normally intended for continuous use for not more than 30 days
- **Long term**
Normally intended for continuous use for more than 30 days

5. Inserting an invasive device

- Prior to insertion, the need for any invasive device should be evaluated and any alternative methods be considered.
- Only staff trained and deemed competent in aseptic technique, refer to the 'Aseptic technique Policy for Care Home settings', and the insertion of the type of device being inserted should perform the procedure. An aseptic technique competency and procedure audit tool is available to download at www.infectionpreventioncontrol.co.uk.
- The insertion should take place in a clinical environment if possible, e.g. treatment room. In the absence of a treatment room, it should take place in the resident's room.
- Ensure all equipment used for the procedure is sterile, the packaging is intact and equipment within the expiry date.
- Prior to inserting a device through the skin, appropriate skin decontamination should be performed, e.g. 2% Chlorhexidine in 70% alcohol for subcutaneous infusions.
- SICPs and, where required, TBPs, and aseptic technique should be applied during the insertion of the device. Refer to the 'SICPs and TBPs Policy for Care Home settings' and the 'Aseptic technique Policy for Care Home settings'.
- Details of the device, reason for insertion and date inserted, should be recorded in the resident's notes.

6. Managing an invasive device

Only staff trained and deemed competent in management of the type of device inserted and where applicable, its administration system, should perform the procedure. If staff are unfamiliar with a particular device or management system, advice and protocols should be obtained from the relevant specialist nurses in secondary care.

The need for an invasive device must be reviewed regularly and the device should be removed as soon as possible.

Staff should inspect and record vascular access device insertion sites for signs of infection at each shift change and adopt a procedure of replacing catheters only when clinically indicated. Refer to the 'Visual Infusion Phlebitis (VIP) Score' below.

Visual Infusion Phlebitis Score (VIP)

Intravenous (IV) site appears healthy	0	No signs of phlebitis ⇒ Observe the cannula
One of the following is evident: ⇒ Slight pain near IV site ⇒ Slight redness near IV site	1	Possible first signs of phlebitis ⇒ Observe the cannula
Two of the following are evident: ⇒ Pain near IV site ⇒ Erythema ⇒ Swelling	2	Early signs of phlebitis ⇒ Resite the cannula
All of the following are evident: ⇒ Pain along path of the cannula ⇒ Erythema ⇒ Induration	3	Medium stage of phlebitis ⇒ Resite the cannula ⇒ Consider treatment
All of the following are evident and extensive: ⇒ Pain along path of the cannula ⇒ Erythema ⇒ Induration ⇒ Palpable venous cord	4	Advance stage of phlebitis or start of thrombophlebitis ⇒ Resite the cannula ⇒ Consider treatment
All of the following are evident and extensive: ⇒ Pain along path of the cannula ⇒ Erythema ⇒ Induration ⇒ Palpable venous cord ⇒ Pyrexia	5	Advanced stage of thrombophlebitis ⇒ Initiate treatment ⇒ Resite the cannula

The principles of care for any invasive device are to:

- Prevent infection
- Maintain a 'closed' system with as few connections as possible to reduce the risk of contamination
- Keep the device patent
- Prevent damage to the device and any attachments

SICPs and, where required, TBPs, and aseptic technique should be applied when manipulating the device. Any signs or symptoms of infection associated with the device should be recorded in the resident's notes and applicable action taken. Seek further appropriate advice as required, e.g. GP, Advanced Nurse Practitioner.

7. Infection Prevention and Control resources, education and training

The Community Infection Prevention and Control (IPC) Team have produced a wide range of innovative educational and IPC resources designed to assist your Care Home in achieving compliance with the *Health and Social Care Act 2008: code of practice on the prevention and control of infections and related resources* and CQC registration requirements.

These resources are either free to download from the website or available at a minimal cost covering administration and printing:

- 30 IPC Policy documents for Care Home settings
- Preventing Infection Workbook: Guidance for Care Homes
- IPC CQC inspection preparation Pack for Care Homes
- IPC audit tools, posters, leaflets and factsheets
- IPC Bulletin for Care Homes

In addition, we hold IPC educational training events in North Yorkshire.

Further information on these high quality evidence-based resources is available at www.infectionpreventioncontrol.co.uk.

8. References

Department of Health and Social Care (Updated December 2022) *Health and Social Care Act 2008: code of practice on the prevention and control of infections and related guidance*

Department of Health and Health Protection Agency (2013) *Prevention and*

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control of infection in care homes – an information resource

National Institute for Health and Care Excellence (March 2012, updated February 2017) *Healthcare-associated infections: prevention and control in primary and community care. Clinical guideline 139*

National Institute for Health and Care Excellence (February 2006, reviewed July 2017) *Nutrition support for adults: oral nutrition support, enteral tube feeding and parental nutrition*

Royal Marsden NHS Foundation Trust (2020) *The Royal Marsden Hospital Manual of Clinical and Cancer Nursing Procedures 10th Edition*